AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A method of displaying a fluorescence image, wherein operation processing is performed on a first fluorescence image having been obtained by detecting fluorescence components of fluorescence having been produced from living body tissues exposed to excitation light, which fluorescence components have wavelengths falling within a specific wavelength region, and at least either one of a second fluorescence image having been obtained by detecting fluorescence components of the fluorescence, which fluorescence components have wavelengths falling within a wavelength region different from the specific wavelength region, and a reflected reference light image having been obtained by detecting reflected reference light, which has been reflected from the living body tissues when reference light is irradiated to the living body tissues, a tissue condition image, which represents a tissue condition of the living body tissues and which has been compensated for a distance to the living body tissues, is formed with the operation processing, and the thus formed tissue condition image is displayed, the method comprising the steps of:

i) making a judgment as to whether each of image areas embedded in the tissue condition image is an abnormal light affected area, which has been affected by light having an intensity equal to at least a specified value, or a normal light detection area, which has been formed with light having an intensity lower than the specified value, the judgment being made in accordance

with at least one image, which is among the first fluorescence image, the second fluorescence image, and the reflected reference light image, and

ii) displaying the abnormal light affected area in a form different from the normal light detection area.

2. (original): An apparatus for displaying a fluorescence image, wherein operation processing is performed on a first fluorescence image having been obtained by detecting fluorescence components of fluorescence having been produced from living body tissues exposed to excitation light, which fluorescence components have wavelengths falling within a specific wavelength region, and at least either one of a second fluorescence image having been obtained by detecting fluorescence components of the fluorescence, which fluorescence components have wavelengths falling within a wavelength region different from the specific wavelength region, and a reflected reference light image having been obtained by detecting reflected reference light, which has been reflected from the living body tissues when reference light is irradiated to the living body tissues, a tissue condition image, which represents a tissue condition of the living body tissues and which has been compensated for a distance to the living body tissues, is formed with the operation processing, and the thus formed tissue condition image is displayed, the apparatus comprising:

i) judgment means for making a judgment as to whether each of image areas embedded in the tissue condition image is an abnormal light affected area, which has been affected by light having an intensity equal to at least a specified value, or a normal light detection area, which has been formed with light having an intensity lower than the specified value, the judgment being

made in accordance with at least one image, which is among the first fluorescence image, the second fluorescence image, and the reflected reference light image, and

ii) abnormal light affected area displaying means for receiving an output from the judgment means and displaying the abnormal light affected area in a form different from the normal light detection area in accordance with the output received from the judgment means.

3. (original): An apparatus for displaying a fluorescence image as defined in Claim 2 wherein the specified value is determined in accordance with an intensity of the reflected reference light, which intensity indicates the presence of regularly reflected light, in the reflected reference light image.

4. (original): An apparatus for displaying a fluorescence image as defined in Claim 2 wherein the specified value is determined in accordance with a limit of the detection in at least one image, which is among the first fluorescence image, the second fluorescence image, and the reflected reference light image.

5. (original): An apparatus for displaying a fluorescence image as defined in Claim 2 wherein the specified value is determined in accordance with a limit of an effective measurement range in at least one image, which is among the first fluorescence image, the second fluorescence image, and the reflected reference light image.

6. (original): An apparatus for displaying a fluorescence image as def fined in Claim 2, 3, 4, or 5 wherein the abnormal light of f ected area displaying means displays the abnormal light affected area in the form different from the normal light detection area only in cases where the tissue condition image is displayed as a still image.

7. (original): An apparatus for displaying a fluorescence image as defined in Claim 2, 3, 4, or 5 wherein the tissue condition image represents a fluorescence yield.

8. (original): An apparatus for displaying a fluorescence image as defined in Claim 2, 3, 4, or 5 wherein the tissue condition image represents a normalized fluorescence intensity.

9. (original): An apparatus for displaying a fluorescence image as defined in Claim 4 wherein at least one image, which is among the first fluorescence image, the second fluorescence image, and the reflected reference light image, is obtained from photoelectric detection of light with an image sensor, and the limit of the detection corresponds to a saturation value of an output of the image sensor.

10. (original): An apparatus for displaying a fluorescence image as defined in Claim 5 wherein a calculation is made to find a mean value of detected values of at least either one of the first fluorescence image and the second fluorescence image, which have been obtained by detecting the fluorescence having been produced from normal tissues when the excitation light is irradiated to the normal tissues spaced apart by a predetermined distance from an excitation light radiating-out point, and

the specified value in accordance with the limit of the effective measurement range is determined in accordance with a value, which is obtained by adding a value representing a variation of the detected values to the thus calculated mean value.

11. (original): An apparatus for displaying a fluorescence image as defined in Claim 2, 3, 4, 5, 9, or 10 wherein the abnormal light affected area displaying means displays the abnormal light affected area as a color area in cases where the normal light detection area is displayed as a monochromatic area, and

the abnormal light affected area displaying means displays the abnormal light affected area as a monochromatic area in cases where the normal light detection area is displayed as a color area.

12. (original): An apparatus for displaying a fluorescence image as defined in Claim 2, 3, 4, 5, 9, or 10 wherein the abnormal light affected area displaying means displays the abnormal light affected area as a blinking area.

13. (original): An apparatus for displaying a fluorescence image as defined in Claim 2, 3, 4, 5, 9, or 10 wherein the apparatus further comprises displaying change-over means for manually changing over between an abnormal light affected area displaying mode and an abnormal light affected area non-displaying mode.

14. (original): An apparatus for displaying a fluorescence image as defined in Claim 2, 3, 4, 5, 9, or 10 wherein the apparatus is constituted as an endoscope system provided with an endoscope tube to be inserted into a living body.

15. (original): An apparatus for displaying a fluorescence image as defined in Claim 2, 3, 4, 5, 9, or 10 wherein the apparatus further comprises a light source for producing the excitation light, and the light source is a GaN type of semiconductor laser.

16.- 32. (canceled).

33. (previously presented): The method of displaying a fluorescence image of Claim 1, wherein the operation processing includes:

dividing values of the first fluorescence image by values of the second fluorescence image to obtain chrominance signal components; and

transforming values of the reflected reference light image into a luminance signal component.

34. (previously presented): The method of displaying a fluorescence image of Claim 33, wherein the step of dividing values includes obtaining a normalized fluorescence intensity by dividing the values of the first fluorescence image by the values of the second fluorescence image and referring the normalized fluorescence intensity to a color look-up table to obtain the chrominance signal components.

35. (previously presented): The method of displaying a fluorescence image of Claim 33, wherein the step of transforming the reflected reference light image includes referring the values of the reflected reference light image to a luminance look-up table to obtain the luminance signal component.

36. (previously presented): An apparatus for displaying a fluorescence image as defined in Claim 2 including an operation processing unit comprising:

a color operation processing section receiving values of the first fluorescence image and values of the second fluorescence image to obtain to output chrominance signal components; and

a luminance operation processing section receiving values of the regularly reflected light image to output a luminance signal component.

37. (previously presented): The apparatus of claim 36, wherein the color operation processing section includes a color look-up table for referring a normalized value of the values of the first fluorescence image and the values of the second fluorescence image to the chrominance signal components.

38. (previously presented): The apparatus of claim 36, wherein the luminance operation processing section includes a luminance look-up table for referring the values of the regularly reflected light image to the luminance signal component.